UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
NGUYEN, THU N

ART UNIT	PAPER NUMBER
2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 June 2010*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-9* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *6-9* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some *   c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

The Office action of August 16, 2010 has been withdrawn due to some

unintended mistake and the following action is taken.

Claims 6-9 are pending.

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

7/15/2010 has been entered.

Response to Arguments

2.   Applicant's arguments with respect to claims 6-9 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

Claims 6-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter.

Claims 6-9 recites a system comprising: a data storing means, a look-ahead

mapping means. It is noted that the recited system in the body of the claim are software

per se. The body of the claim does not define any specific hardware that can be used to

execute these software components. Therefore, the system is not tangibly embodied in

a manner so as to be executable. Thus, in order to overcome this 35 USC 101 rejection

the claim needs to be amended to include physical computer hardware (i.e. a

processor, memory) in the body of the claim to execute the software components.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tran

(U.S. Patent No. 6,205,541 A1), and further in view of Nevil et al (U.S. Patent No.

7,000,094).

6.   As per claim 6, Tran discloses a look-ahead stack management system for

configuring a look-ahead state of an operand stack in a computer system capable of out

-of-order execution, comprising:

a data storing means having entries each configured to hold data of an operand

stack (Tran: Column 15 lines 47-67 and figure 5 element 102, register stack hold data);

and

a look-ahead mapping means having entries each configured to hold an entry

address in said data storing means, wherein (Tran: Column 15 lines 47-67 and figure 5

element, register map having pointer entries to register stack).

Tran does not explicitly disclose each time a modification is to be made on said

operand stack, said look-ahead mapping means is so modified that, for each entry of

said look-ahead mapping means that is to hold an entry address in said data storing

means allocated to an operand stack element, the address of the entry of said look-

ahead mapping means is to indicate the number of operand stack elements over said

operand stack element.

However, Nevil discloses each time a modification is to be made on said operand

stack, said look-ahead mapping means is so modified that, for each entry of said look-

ahead mapping means that is to hold an entry address in said data storing means

allocated to an operand stack element, the address of the entry of said look-ahead

mapping means is to indicate the number of operand stack elements over said operand

stack element (Nevil: Column 4 lines 15-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features as disclosed in Nevil into Tran system to updated of stack operands and having a particular position within the stack in the register.

As per claim 7, Tran discloses a look-ahead stack management system for configuring a look-ahead state of an operand stack in a computer system capable of out -of-order execution, comprising:

a data storing means having entries each being able to hold data (Tran: Column 15 lines 47-67 and figure 5 element 102, register stack hold data); and

a look-ahead mapping means having entries each being able to hold an entry address in said data storing means (Tran: Column 15 lines 47-67 and figure 5 element, register map having pointer entries to register stack).

Tran does not explicitly disclose each time a modification is to be made on said operand stack, said look-ahead mapping means is so modified that, for each entry of said look-ahead mapping means holding an entry address in said data file allocated to an operand stack element, if the entries of said look-ahead mapping means is to hold an entry address in said data storing means allocated to an operand stack element, the number of operand stack elements over the operand stack element whose value is one of: is held and to be held in the entry of said data storing means indicated by the address held in the entry of said look-ahead mapping means is to be unchanged.

However, Nevil discloses each time a modification is to be made on said operand stack, said look-ahead mapping means is so modified that, for each entry of said look-ahead mapping means holding an entry address in said data file allocated to an operand stack element, if the entries of said look-ahead mapping means is to hold an entry address in said data storing means allocated to an operand stack element, the number of operand stack elements over the operand stack element whose value is one of: is held and to be held in the entry of said data storing means indicated by the address held in the entry of said look-ahead mapping means is to be unchanged (Nevil: Column 4 lines 15-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features as disclosed in Nevil into Tran system to updated of stack operands and having a particular position within the stack in the register.

As per claim 8, Tran discloses a look-ahead stack management system for configuring a look-ahead state of an operand stack in a computer system capable of out -of-order execution, comprising:

a data storing means having registers each being able to hold data (Tran: Column 15 lines 47-67 and figure 5 element 102, register stack hold data); and

a look-ahead mapping means having registers each being able to hold a register number in said data file data (Tran: Column 15 lines 47-67 and figure 5 element, register map having pointer entries to register stack).

Tran does not explicitly disclose each time a modification is to be made on said operand stack, said look-ahead mapping means is so modified that, for each entry of said look-ahead mapping means that is to hold an entry address in said data storing means allocated to an operand stack element, the address of the entry of said look-ahead mapping means is to indicate the number of operand stack elements over said operand stack element.

However, Nevil discloses each time a modification is to be made on said operand stack, said look-ahead mapping means is so modified that, for each entry of said look-ahead mapping means that is to hold an entry address in said data storing means allocated to an operand stack element, the address of the entry of said look-ahead mapping means is to indicate the number of operand stack elements over said operand stack element (Nevil: Column 4 lines 15-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features as disclosed in Nevil into Tran system to updated of stack operands and having a particular position within the stack in the register.

As per claim 9, Tran discloses a look-ahead stack management system for configuring a look-ahead state of an operand stack in a computer system capable of out -of-order execution, comprising:

a data storing means having registers each being able to hold data (Tran: Column 15 lines 47-67 and figure 5 element 102, register stack hold data); and

a look-ahead mapping means having registers each being able to hold a register

number in said data file (Tran: Column 15 lines 47-67 and figure 5 element, register

map having pointer entries to register stack).

Tran does not explicitly disclose each time a modification is to be made on said

operand stack, said look-ahead mapping means is so modified that, for each register of

said look-ahead mapping means holding a register number in said data file allocated to

an operand stack element, if the register of said look-ahead mapping means is to hold a

register number in said data storing means allocated to an operand stack element, the

number of operand stack elements over the operand stack element whose value is one

of: held and to be held in the register of said data file indicated by the number held in

the register of said look-ahead mapping means is to be unchanged.

However, Nevil discloses each time a modification is to be made on said operand

stack, said look-ahead mapping means is so modified that, for each entry of said look-

ahead mapping means holding an entry address in said data file allocated to an

operand stack element, if the entries of said look-ahead mapping means is to hold an

entry address in said data storing means allocated to an operand stack element, the

number of operand stack elements over the operand stack element whose value is one

of: is held and to be held in the entry of said data storing means indicated by the

address held in the entry of said look-ahead mapping means is to be unchanged (Nevil:

Column 4 lines 15-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features as disclosed in Nevil into Tran system to updated of stack operands and having a particular position within the stack in the register.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nga Nguyen whose telephone number is 571-270-1765. The examiner can normally be reached on Mon-Thurs from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 12, 2010

/T. N./

Examiner, Art Unit 2161

/Apu M Mofiz/

Supervisory Patent Examiner, Art Unit 2161